

REMARKS

The Office Action dated January 14, 2011 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

By this Response, claims 1, 27, and 32 have been amended to more particularly point out and distinctly claim the subject matter of the present invention. No new matter has been added. Support for the above amendments is provided in the Specification on at least page 7, lines 1-10, and page 8, lines 12-27, of the Specification.

Claims 1-20, 23-25, and 27-32 are currently pending and respectfully submitted for consideration.

The Applicants wish to thank the Examiner for the courtesies extended during the telephone interview conducted on March 16, 2011.

In the Office Action, claims 1-20, 23-25, and 27-32 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ahmavaara, U.S. Pat. No. 7,058,423 ("Ahmavaara") in view of Karaoguz, et al. U.S. Pat. Pub. No. 2002/0059434 ("Karaoguz"). This rejection is respectfully traversed for at least the following reasons.

Claim 1, upon which claims 2-20 are dependent, recites a method including receiving, from a mobile network, an indication at a multimode terminal operably connected to the mobile network. The indication indicates that services may be locally available via at least one short-range wireless network. The method further includes,

based on the indication, collecting service information about services for the multimode terminal available through at least one short-range radio interface of the multimode terminal. The collecting service information includes the multimode terminal activating the at least one short-range radio interface, searching for one or more compliant networks, and receiving and storing network-specific information when a compliant network is found. Based on the service information collected, the method includes compiling a service list describing at least one service available through the at least one short-range radio interface.

Claim 27, upon which claims 23-25 and 28-31 are dependent, recites an apparatus including a first radio interface operably connectable to a mobile network, and at least one short-range radio interface. The apparatus further includes a receiver configured to receive an indication, from the mobile network, through the first radio interface. The indication indicates that services may be locally available for the apparatus via at least one short-range wireless network. The apparatus also includes a controller configured to collect service information about services available via at least one of the at least one short-range wireless network, and compile a service list based on the service information collected. The collecting service information includes activating the at least one short-range radio interface, searching for one or more compliant networks, and receiving and storing network-specific information when a compliant network is found. The service list describes at least one service available via the at least one of the at least one short-range wireless network.

Claim 32 recites an apparatus including a first radio interface operably connectable to a mobile network, and at least one short-range radio interface. The apparatus also includes receiving means for receiving an indication, from the mobile network, through the first radio interface. The indication indicates that services may be locally available for the apparatus via at least one short-range wireless network. The apparatus further includes information collection means, responsive to the reception means, for collecting service information about services available via at least one of the at least one short-range wireless network. The information collecting means includes activating the at least one short-range radio interface, and searching for one or more compliant networks, receive and store network-specific information when a compliant network is found. The apparatus includes service indication means for compiling a service list based on the service information collected. The service list describes at least one service available via the at least one of the at least one short-range wireless network.

As will be discussed below, Ahmavaara and Karaoguz fail to disclose or suggest all of the elements of the claims, and therefore fails to provide the features discussed above.

Ahmavaara describes FIG. 1 shows generally the architecture proposed for UMTS. A mobile station (MS) 1 can communicate by radio with one or more base stations (BS) 2. Each base station is linked by an Iub interface 3 to a single radio network controller (RNC) 4. Each RNC can be linked to one or more BSs. An RNC can be linked to another RNC by an Iur interface 5. Each RNC is linked by an Iu interface 6 to a core network

(CN) 7. The CN includes one or more serving nodes that can provide communication services to a connected mobile station, for example a mobile switching centre (MSC) or a serving GPRS (general packet radio service) support node (SGSN) 8. These units are connected by the lu interface to the RNCs. The CN is also connected to other telecommunications networks 9 such as fixed line networks or other mobile networks to allow onward connection of communications outside the UMTS network. The CN also includes other units such as a home location register (HLR) 10 and a visitor location register (VLR) 11 which help to control access to the network.

Karaoguz discloses systems and methods for implementing multi-mode wireless communication devices such as PDAs or multi-function mobile phones that take advantage of the wireless networks in their proximity. In the case where a nearby wireless network happens to provide more data bandwidth and/or better quality of service, a multi-mode wireless device may switch to that particular wireless network to access these services. A multi-mode controller in the device may be used to alternately poll different networks to determine whether the device is within the area of coverage of a network and to selectively establish communications with those networks.

Applicants respectfully submit that Ahmavaara and Karaoguz fail to disclose or suggest all of the elements of the present claims. For example, Ahmavaara and Karaoguz, individually or combined, do not disclose or suggest, at least, “based on the indication, collecting service information about services for the multimode terminal available through at least one short-range radio interface of the multimode terminal,

wherein said collecting service information comprises: the multimode terminal activating the at least one short-range radio interface, searching for one or more compliant networks, and receiving and storing network-specific information when a compliant network is found,” as recited in claim 1. Similarly, Ahmavaara and Karaoguz fail to disclose or suggest “a controller configured to collect service information about services available via at least one of the at least one short-range wireless network, wherein said collecting service information comprises: activating the at least one short-range radio interface, searching for one or more compliant networks, and receiving and storing network-specific information when a compliant network is found, and compile a service list based on the service information collected, the service list describing at least one service available via the at least one of the at least one short-range wireless network,” as recited in claim 27 and similarly recited in claim 32.

Instead, Ahmavaara describes a configuration in which the mobile network is used to transmit information on services available via the same mobile network. For instance, in column 3, lines 20-40, Ahmavaara describes that “suitably, the intermediate network is capable of transmitting to a mobile station an indication of one or a plurality of serving network entities and the communications services provided by each one. Preferably, in order to receive a desired service a mobile station is capable of determining one of the serving network entities indicated as providing that service and attempting to establish a connection with that serving network entity via the intermediate network.” Ahmavaara describes that the information about the services available is transmitted via the same

network that transmits the actual services. Furthermore, there is no description or suggestion providing that collecting service information may include a multimode terminal activating a short-range radio interface, searching for one or more compliant networks, and receiving and storing network-specific information when a compliant network is found.

In addition, in column 5, lines 15-30, Ahmavaara provides that the MS receives from the UTRAN a message indicating the available domains and the services offered/supported by each. In addition, in column 5, line 6, Ahmavaara explains that CN [=Core Network] domains are CN nodes. Thus, in Ahmavaara, the MS selects one or more appropriate CN nodes for providing the required services. The services are available via the same mobile network.

Karaoguz does not cure the deficiencies of Ahmavaara. Rather, Karagouz describes that knowledge about services available via the short-range networks is obtained via the same short-range networks. In paragraph [0017], the IEEE 802.11b controller disclosed by Karaoguz corresponds to a WLAN controller; thus, Karagouz discloses a dual-mode controller for Bluetooth and WLAN short-range networks. Although Karaoguz describes that a “multimode controller 80 receives network information 88 indicative of whether the device is within range of a supported network” (Karaoguz, paragraph [0044]), Karaoguz does not disclose that this network information is received from the mobile network. Karaoguz instead describes that knowledge about services available via short-range networks is obtained via the same short-range

networks. Similar to Ahmavaara, Karaoguz does not provide a description or suggestion of “wherein said collecting service information comprises: the multimode terminal activating the at least one short-range radio interface, searching for one or more compliant networks, and receiving and storing network-specific information when a compliant network is found,” as recited in independent claim 1 and similarly recited in independent claims 27 and 32.

It appears that, according to Karaoguz, the device itself informs the multimode controller of whether the device is within range of a supported network. In other words, according to Karaoguz, the network information is provided by the device, not by the mobile network. In particular, paragraph [0035] of Karaoguz provides that “each multi-mode communication device 30 or 34 determines whether it is within the area of coverage of a type of network that is supported by the multi-mode communication device” (Karaoguz, paragraph [0035]). Nowhere does Karaoguz disclose receiving an indication indicating that services may be available via a short-range wireless network from the mobile network. FIG. 4 of Karaoguz, and the corresponding sections of the description (paragraphs [0044]-[0050]), does not disclose that the “network information” is received from an outside source, such as the mobile network. Nowhere in Karaoguz is there a teaching or suggestion of a multimode terminal activating the at least one short-range radio interface, searching for one or more compliant networks, and receiving and storing network-specific information when a compliant network is found as in the present claims.

Furthermore, in the entire disclosure of Ahmavaara, the term “network” refers to services provided by Core Network (CN) nodes or domains via the UTRAN. As taught by Ahmavaara, the mobile station receives knowledge of services provided by CN nodes (domains) via the UTRAN nodes (BS and RNC nodes). A person of ordinary skill in the art can only conclude that the configuration of Ahmavaara can only mean that knowledge about services available is sent and received via the same transmission path as the actual services. Ahmavaara only discloses that the information about the services available is transmitted via the same network that transmits the actual services (in Ahmavaara that network is the mobile network, which consists of the Core Network and the UTRAN, as disclosed in Figure 1 and its description.)

FIG. 14 of Karaoguz discloses explicitly how the presence or absence of short-range networks (Bluetooth or 802.11) is detected, and the result of such detection is the “network information 88” shown in FIG. 4. In connection with FIG. 14, Karaoguz discloses that the detection of short-range networks (Blue-tooth or 802.11) is initiated in step 232: “In the absence of any network connection, the dual-mode controller initiates a new network scan request 232 every ‘CFP Maximum Duration’ per 802.11b MAC specification” (Karaoguz, paragraph [0086]). Because the “dual-mode controller,” which is an embodiment of the “multi-mode controller,” resides in the communication device (terminal), it is the terminal and not the mobile network that initiates the detection of short-range networks.

Paragraphs [0009]-[0010] and [0044] of Karaoguz do not describe receiving an indication indicating that services may be available via a short-range wireless network from the mobile network. FIG. 4 of Karaoguz, for instance, and paragraphs [0009]-[0010] and [0044], do not disclose that the “network information” is received from an outside source, such as the mobile network. Karaoguz fails to teach or suggest, “wherein said collecting service information comprises: the multimode terminal activating the at least one short-range radio interface, searching for one or more compliant networks, and receiving and storing network-specific information when a compliant network is found,” as recited in independent claim 1 and similarly recited in independent claims 27 and 32.

Therefore, for at least the reasons outlined above, Ahmavaara and Karaoguz, individually or combined, do not disclose or suggest all the claimed features of independent claims 1, 27, and 32.

Claims 2-20, 23-25 and 28-31 are dependent upon claims 1 and 27, respectively. As such, claims 2-20, 23-25 and 28-31 should be allowed for at least their dependence upon claims 1 and 27, and for the specific limitations recited therein.

For at least the reasons discussed above, Applicants respectfully submit that Karaoguz fails to disclose or suggest all of the elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-20, 23-25, and 27-32 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time.

Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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